

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

1-6. (Canceled).

7. (Previously Presented) A method for automatically initiating an emergency braking sequence, comprising:

performing a preliminary warning braking in a motor vehicle;

increasing a braking force during the preliminary warning braking until at least one wheel locks reaching a maximum slip limit;

responsive to one of the braking force and a correlated state variable attaining a defined maximum value, ceasing the increasing of the braking force;

determining an attainable vehicle deceleration during the preliminary warning braking, based on the maximum slip limit;

responsive to one of the braking force and the correlated state variable attaining the defined maximum value, using a high estimated value of the attainable vehicle deceleration;

varying a time of initiating an emergency braking as a function of the determined attainable vehicle deceleration; and

correcting a provisional point in the time of initiating the emergency braking on the basis of the vehicle deceleration as given by a determined coefficient of friction.

8. (Previously Presented) The method as recited in Claim 7, further comprising:

decelerating at least one wheel of the motor vehicle to a slip limit during the preliminary warning braking.

9. (Canceled).

10. (Previously Presented) The method as recited in Claim 7, wherein the attainable vehicle deceleration is represented by a parameter that indicates a coefficient of friction between a roadway and tires.

11. (Previously Presented) The method as recited in Claim 10, further comprising:

determining the coefficient of friction during preliminary warning braking; and
controlling, in accordance with the determined coefficient of friction, a braking pressure buildup when initiating the emergency braking.

12. (Previously Presented) A control unit, comprising:

a situation analyzer unit for determining a point in time for initiating a warning braking and a later, provisional point in time of initiating an emergency braking on the basis of a measured distance to an obstacle and a measured relative velocity of this obstacle, as well as on the basis of a provisional value of a vehicle deceleration; and

an ABS/ESP control unit for modulating a braking pressure as a function of a slip condition of a braked wheel while computing a coefficient of friction of a roadway, the coefficient of friction being determined during the warning braking, the ABS/ESP control unit reporting the determined coefficient of friction to the situation analyzer unit;

wherein the braking pressure during the warning braking has a defined maximum value so that the coefficient of friction will be set to a high estimated value if the braking pressure during the warning braking reaches the defined maximum value,

wherein the situation analyzer unit corrects the provisional point in a time of initiating the emergency braking on the basis of the vehicle deceleration as given by the determined coefficient of friction, and

wherein a braking force is increased during a preliminary warning braking until at least one wheel locks reaching a maximum slip limit.

13. (Previously Presented) The control unit as recited in Claim 12, wherein at least one wheel of the motor vehicle is decelerated to a slip limit during the preliminary warning braking.

14. (Previously Presented) The control unit as recited in Claim 12, wherein the attainable vehicle deceleration is represented by a parameter that indicates a coefficient of friction between a roadway and tires.

15. (Previously Presented) The control unit as recited in Claim 14, wherein the coefficient of friction is determined during preliminary warning braking, and in accordance with the

determined coefficient of friction, a braking pressure buildup is controlled when initiating the emergency braking.

16. (Previously Presented) The control unit as recited in Claim 12, wherein at least one wheel of the motor vehicle is decelerated to a slip limit during the preliminary warning braking, wherein the attainable vehicle deceleration is represented by a parameter that indicates a coefficient of friction between a roadway and tires, and wherein the coefficient of friction is determined during preliminary warning braking, and in accordance with the determined coefficient of friction, a braking pressure buildup is controlled when initiating the emergency braking.

17. (Previously Presented) The method as recited in Claim 7, further comprising:

decelerating at least one wheel of the motor vehicle to a slip limit during the preliminary warning braking;

determining the coefficient of friction during preliminary warning braking; and

controlling, in accordance with the determined coefficient of friction, a braking pressure buildup when initiating the emergency braking;

wherein the attainable vehicle deceleration is represented by a parameter that indicates a coefficient of friction between a roadway and tires.

18. (New) The method as recited in Claim 7, further comprising:

initiating a warning braking at a time determined by a situation analyzer unit;

continuously increasing, during the warning braking, a braking force at a determined rate of increase;

measuring a slip at the braked wheels, wherein if no slip occurs during warning braking, then the roadway has a relatively high coefficient of friction, so that the provisionally assumed time for initiating an emergency braking does not have to be modified;

discontinuing the warning braking when an exerted braking force attains a defined maximum value; and

initiating the actual emergency braking, since the roadway has relatively good skid-resistant properties and since no slip will occur for braking forces below the defined maximum value;

wherein the braking force may be increased at a higher rate at least up to the defined maximum value, so that braking is initiated earlier as appropriate, and

wherein if the braking force is increased beyond the defined maximum value, the rate of increase is reduced, so that wheel slip is detected in a timely manner to prevent an overshooting braking response.

19. (New) The method as recited in Claim 18, wherein for a slippery roadway, due to a lower coefficient of friction of the roadway, wheel slip occurs at a lower braking force, wherein the warning braking is continued using increasing braking force until the slip reaches a defined limiting value, which is no more than 1, at which time the warning braking is discontinued, so that the roadway's coefficient of friction is accurately determined based on a dynamic response of the braked wheel, and a resulting ability of the motor vehicle to decelerate is reported back to the situation analyzer unit, which corrects the time for initiating the emergency braking, wherein the lower the measured coefficient of friction of the roadway, the time for initiating the emergency braking is made earlier, so that as long as a certain delay remains between a warning braking and the emergency braking, the braking force is increased at a high rate to a value predefined value, so that the braking pressure response does not overshoot despite a rapid buildup of braking pressure.

20. (New) The method as recited in Claim 7, wherein for a slippery roadway, due to a lower coefficient of friction of the roadway, wheel slip occurs at a lower braking force, wherein the warning braking is continued using increasing braking force until the slip reaches a defined limiting value, which is no more than 1, at which time the warning braking is discontinued, so that the roadway's coefficient of friction is accurately determined based on a dynamic response of the braked wheel, and a resulting ability of the motor vehicle to decelerate is reported back to the situation analyzer unit, which corrects the time for initiating the emergency braking, wherein the lower the measured coefficient of friction of the roadway, the time for initiating the emergency braking is made earlier, so that as long as a certain delay remains between a warning braking and the emergency braking, the braking force is increased at a high rate to a value predefined value, so that the braking pressure response does not overshoot despite a rapid buildup of braking pressure.

21. (New) The control unit as recited in Claim 12, wherein:

during the warning braking, a braking force is continuously increased at a determined rate of increase,

a slip at the braked wheels is measured, and if no slip occurs during warning braking, then the roadway has a relatively high coefficient of friction, so that the provisionally assumed time for initiating an emergency braking does not have to be modified,

the warning braking is discontinued when an exerted braking force attains the defined maximum value,

the actual emergency braking is initiated, since the roadway has relatively good skid-resistant properties and since no slip will occur for braking forces below the defined maximum value,

the braking force is increased at a higher rate at least up to the defined maximum value, so that braking is initiated earlier as appropriate, and

if the braking force is increased beyond the defined maximum value, the rate of increase is reduced, so that wheel slip is detected in a timely manner to prevent an overshooting braking response.

22. (New) The control unit as recited in Claim 21, wherein for a slippery roadway, due to a lower coefficient of friction of the roadway, wheel slip occurs at a lower braking force, wherein the warning braking is continued using increasing braking force until the slip reaches a defined limiting value, which is no more than 1, at which time the warning braking is discontinued, so that the roadway's coefficient of friction is accurately determined based on a dynamic response of the braked wheel, and a resulting ability of the motor vehicle to decelerate is reported back to the situation analyzer unit, which corrects the time for initiating the emergency braking, wherein the lower the measured coefficient of friction of the roadway, the time for initiating the emergency braking is made earlier, so that as long as a certain delay remains between a warning braking and the emergency braking, the braking force is increased at a high rate to a value predefined value, so that the braking pressure response does not overshoot despite a rapid buildup of braking pressure.

23. (New) The control unit as recited in Claim 12, wherein for a slippery roadway, due to a lower coefficient of friction of the roadway, wheel slip occurs at a lower braking force, wherein the warning braking is continued using increasing braking force until the slip reaches a defined limiting value, which is no more than 1, at which time the warning braking is discontinued, so that the roadway's coefficient of friction is accurately determined based on a dynamic response of the braked wheel, and a resulting ability of the motor vehicle to decelerate is reported back to the

situation analyzer unit, which corrects the time for initiating the emergency braking, wherein the lower the measured coefficient of friction of the roadway, the time for initiating the emergency braking is made earlier, so that as long as a certain delay remains between a warning braking and the emergency braking, the braking force is increased at a high rate to a value predefined value, so that the braking pressure response does not overshoot despite a rapid buildup of braking pressure.